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The Cleveland Meeting, September 11-16

During the week of next September 11-16, the American Association for the Advancement of Science will hold its annual meeting for 1944 at Cleveland, Ohio. Invitations have been extended by the Association to all its affiliated and associated societies to participate in that meeting so far as it may be convenient for them to do so. The Cleveland meeting will be the one hundred eleventh meeting of the Association and the fifth to be held at Cleveland. A meeting scheduled for that city in 1852 had to be canceled because of the prevalence of cholera along the approaches to it from the south.

Cleveland was chosen as the place to hold the meeting partly because of its central location and accessibility from all directions, and partly because of the facilities it offers for holding such great meetings as those of the Association. At least 40 meeting rooms, each seating at least 75 persons, will be required to accommodate the many sessions that must be held simultaneously in order to complete the programs within six days. It would not be possible to secure so many suitable rooms if the meeting were not held during the interval between the scheduled departure of one group of trainees at Case School of Applied Science and the arrival of another group.

Dr. William E. Wickenden, president of Case School of Applied Science, has accepted the chairmanship of the General Committee for the Cleveland meeting, and will place at the disposal of the Association and the societies that will meet with it all the facilities of his institution. The Western Reserve University and other Cleveland cultural institutions are similarly cooperating.

The Cleveland Convention Bureau is providing the large number of competent assistants that are necessary for the smooth functioning of such a large and complicated meeting.

For the first time in its history the Association has held conferences of the secretaries of its sections and of its associated societies in advance of a meeting for the purpose of formulating general plans for the programs. Secretaries who live in the Middle West met with officers of the Association in Chicago on February 20; those who are residents of the East met similarly in New York on February 27.

There can be little doubt that the conferences of the secretaries that have been held will mark the beginning of a new period in cooperative meetings of scientists in this country. The time at each conference was devoted almost entirely to consideration of general principles and policies instead of details of particular programs. When the Association was founded, science was regarded more or less as an exotic flower floating on the tide of human progress. Now it is realized that it is producing the swift currents that are bearing humanity onward, whether to smooth seas of happiness or maelstroms of misery remains to be determined. Naturally the horizons of scientists are becoming wider and the consequences of their work are being seriously considered. Such attitudes are characteristic of the times. For example, in contrast with the light hearted days of World War I, the young men and women now in uniforms are gravely thoughtful. Scientists are not only contributing vastly to winning the war, but they are determined that this new world which they have so joyously made possible shall not now dissolve into chaos.

Professional reformers attempt to reform all the world except themselves, but scientists think that reform properly begins at home. Therefore, the participants in the conferences turned their dissecting implements and their microscopes on themselves in order to find what omission and absurdities they may have been guilty of in organizing their meetings. It became clear that though the programs of the Association have had much of the materials for paeans of triumph and

the riches of oratorios they have been largely vast medleys. They have lacked any unifying purpose, any definite general objective. They have been more like the printer's pi out of which words of wisdom might be constructed.

Any one will find by experiment that it is not easy to formulate general objectives for science and scientists. The meaning of what science has accomplished no one understands and the possibilities for its future cannot be foreseen. Yet it is clear that science has not been cultivated for the benefit of the lower forms of life or for the dead. Scientists work partly to satisfy their urge to explore and know. They work partly for others and the future, or they would not undergo the drudgery of putting their results in form for publication. When the question of the purpose of science and scientific meetings was raised, the participants in both conferences at once recognized the deep responsibility of scientists to society and the remark was made that it is surprising that it required the shocks of war to make them fully aware of the obvious. The Chicago conference, in recommending a new policy in organizing meetings of the Association and its cooperating societies, passed the following resolution:

Resolved that this conference recommend that the fundamental nature of science, its relations and obligations to society, together with the means of securing public comprehension of the scientific methods and attitudes, be considered as subjects to be stressed in the September meeting, both in general sessions and in symposia and, as may seem desirable, in the meetings of the individual sections and societies.

The New York conference approved the resolution passed at the Chicago conference and took a further step toward putting the new policy into effect by unanimously passing the following resolution:

Resolved that the general recommendation of the Chicago conference be approved, and in order to put it into effect we suggest that adequate time at the Cleveland meeting of the Association and its affiliated societies be devoted to general sessions on the larger problems of science, such as science and the post-war world, with particular emphasis upon rehabilitation, education, and research.

Obviously the resolutions quoted above were intended to be general statements of policy rather than definitive programs for action. Yet concrete plans were considered and will be referred to the appropriate sections of the Association and affiliated societies for consideration and action. In particular, it was recommended that, in addition to the presidential address of Dr. Bowman and the Sigma Xi and Phi Beta Kappa lectures, there be general sessions devoted to programs on

such subjects as those mentioned in the resolution. On these occasions the most eminent of American, and sometimes foreign, scientists will discuss various aspects of science, not as something apart from human life and society, but as the most powerful and far-reaching influence affecting man.—F.R.M.

Con and Pro

Letters received regarding the brief comments on "Animal and Human Inheritance" that appeared in the January issue of this BULLETIN provide a suitable occasion for belated comments on the purpose of these "Editorials."

When no announcement of approaching activities of the Association is to be made, the first article in the BULLETIN is often on some subject of general interest. Limitations of space make it necessary to restrict such discussions to about six short paragraphs, a space obviously wholly inadequate for sharp definitions, qualifications necessary for precision, and arguments adequate for positive conclusions. Their purpose is to be suggestive and stimulating, rather than exhaustive and pedantic. That they are fulfilling this purpose to a considerable degree is proved by the many comments about them that are being received and the number of them that are being reprinted in other publications.

A professor of journalism formerly connected with Columbia University wrote the following letter for publication in *Science*. It has been transferred to the BULLETIN because it refers to an article that appeared in this publication, which reaches about 9,000 more readers than *Science* does.

Sir:

The most astounding discovery of modern times has been casually, perhaps modestly, tucked away in a paragraph on page 1 of the A.A.A.S. BULLETIN for the current month.

In an editorial on "Animal and Human Inheritance," F. R. Moulton points out a deep difference between animal and human lines of transmission. I quote:

"In the domain of the intellect, inheritance is not limited to such cumbrous methods of transmission [as that of the genes]. After the evolution of the power of speech minds spoke to other minds directly and effectively, independently of genetic relationship, with resulting acceleration of the evolution of the cerebral cortex. [I do the italicizing here]. . . .

"In a real sense we are direct intellectual descendants of all whose words have influenced our minds. . . . From the Jews we have inherited theology; from the Egyptians, geometry; from the Persians, astronomy; from the Babylonians, mythology; from myriads of others the wisdom that has been distilled out of the dross of the lives of a thousand generations. Shakespeare to the contrary notwithstanding, the good that

men do lives after them and the evil is generally interred with their bones. . . ."

Appearing as this does in the official bulletin of the A.A.A.S., we may rest assured that it is based upon a series of extraordinary researches. If the Government has ordered that these be kept secret for the duration of the war, because they might otherwise give aid and comfort to the enemy, I shall not urge their immediate publication in *Science*. I can well imagine that the copious use of words directed at any given group of people might, in the light of these new discoveries, become a terrible weapon in the hands of Hitler and Tojo. By stepping up the wordage of Dr. Goebbels' factory, might not the Axis dangerously accelerate the evolution of the cerebral cortex throughout the United Nations? If we inherit theology from ancient Jews through the words of the Old Testament, might we not inherit Nazi theology from Hitler?

Perhaps not. Perhaps the second discovery reported by the Secretary of A.A.A.S. is our salvation. Perhaps we have now evolved to the point at which the distillation process he announces protects us against Hitler.

As words flow in, the secret process distills them in manner most amazing. Dross is eliminated. All that remains after the vapors condense and settle in our still are the Good, the True and the Beautiful. Gone all Dangerous Thoughts. Gone all Mortal Error.

Thanks to this process, says Moulton, "the prospects for the future of humanity are favorable."

This is most reassuring. But some of us poor devils who have toiled for a lifetime over semantics and the psychomechanisms of language would appreciate a confidential memorandum from the Secretary as to where we can find the researches proving that impressions on the retina and tympanum, when in the form of language, accelerate the evolution of the cerebral cortex. And, if it isn't asking too much, we'd like a tip as to who found that distillating process in the cortex which separate Good from Evil and Truth from Error.

Is it possible that the discoveries came from the research laboratories of Professor Mary Baker Eddy?

Respectfully,

WALTER B. PITKIN.

A few days earlier than the date of the preceding letter the following note was received from a botanist (whose life began before 40) who is still connected with Columbia University:

Please send me a copy of the January issue of the A.A.A.S. BULLETIN. . . . I am especially interested in and grateful for the article on "Animal and Human Inheritance." Your short, clear note has given me a moment of real pleasure and inspiration.

Sincerely,

ROBERT L. HULBARY.

Among the letters received regarding the same brief article was the following from the Director of the Medical Sciences of the Rockefeller Foundation.

I have just read your reflections on "Animal and Human Inheritance" in No. 1 of Volume 3 of the A.A.A.S. BULLETIN with interest from the beginning and elation at the final sentence. This is just to thank you for the effort you are making in behalf of all the sciences.

Yours sincerely,

ALAN GREGG.

About the only conclusion that can be drawn with certainty from the letters quoted and from the many other somewhat similar ones that have been received is that scientists differ widely on details, if not on fundamental principles. Editors must expect these differences, and they will serve their readers best if they learn from sincere and constructive criticisms and are not lulled into complacency by generous words of commendation.—F.R.M.

Section L Looks Forward

The proposed changing of the name of Section L from *Historical and Philological Sciences* to *History and Philosophy of Science* is not a mere technical matter but involves a program. It means a change in emphasis.

The former designation of the section was indeed misleading in many ways. First, it is at least debatable whether history and philology may be considered sciences. And second, the purpose of the section was obviously not to promote studies in palaeography, epigraphy or linguistics but to cultivate historical and philological studies in relation with science.

The new designation of the section outlines its program very clearly. It will study the history of science, which is both history and science. It is one and a very important aspect of the history of civilization and one that has been very much neglected in the past. The time is gone when historians could picture the history of mankind in the light of dynastic quarrels, of wars and peace treaties; and it should be generally recognized now that the impact of science and technology on man's destinies has been tremendous at all times. Diplomatic history has been investigated for centuries, while the history of science is a very young field of research that is cultivated by a handful of people only. Much basic work, including the philological interpretation of texts, remains to be done. Section L by promoting studies in the history of science can make a great contribution to general history.

The history of science is science also. Every situation in which we find ourselves is always the result of definite historical developments and trends of which we, as a rule, are unaware. If the historical analysis succeeds in making us conscious of these developments, it enables us to understand a given situation more clearly and to act more intelligently. Thus the history of science, besides being one aspect of the history of civilization, becomes a driving force in the life of the scientist. It helps him to understand

science and the part it is called to play in modern society. It broadens his horizon and prevents him from becoming a narrow specialist.

It is easily apparent that such studies are more urgently needed today than ever, at a time when the basic cause of all our troubles lies in the fact that in every field technology has outrun sociology. Without profound historical studies it will never be possible to create the social organization that our present technology requires, and without such adjustments there will be no permanent peace in the world.

The reorganization of college curricula will remain futile unless it at long last gives the history of science a central position. The history of science is the bridge between the humanities and science. It permits us to bring the humanities close to the scientist and to teach a scientific outlook to the students of humanities in a language that both understand. Section L has an important task to fulfill in promoting instruction in the field and in advising educators.

Throughout the ages philosophy and science developed in close intercourse. Philosophy gave guidance to science and received from it empirical materials. Modern physics has opened up new horizons to philosophy. The theory of science, its methods and aims are objects of philosophical investigation. Section L was therefore well advised in combining the history with the philosophy of science.—HENRY E. SIGERIST, *Retiring Vice President of Section L.*

Army Education in the Colleges

Until recently there were about 140,000 soldiers studying in the 222 colleges and universities that are participating in the Army's Specialized Training and Reassignment (STAR) program. The maximum quota set for the program at any one time was 150,000. Approximately 10,000 men were being admitted monthly and it was estimated that about 8,000 would be completing their training each month.

Perhaps the most striking innovation in this training is that the work load of the trainee includes approximately 59 hours of supervised activity each week, consisting of a minimum of 24 hours of classroom and laboratory work, 24 hours of required study, 5 hours of military instruction, and 6 hours of physical training. The loads carried by the instructors vary considerably from one to another, but generally they are far above that low minimum toward which they have gradually drifted during the past 40 years under the demands of more leisure for deep thinking.

In this Army training program there is no place for the young man who has heretofore regarded his college as a club at which he can become ennobled by acquaintance with life as it is expressed in campus politics instead of by following the intellectual heroes of the race. Of course, there have always been hard workers among students—young men earning their way through college and often playing on athletic teams, young men finding high adventure in exploring the world of scholarship lying open before them, young men burning with zeal for worthy achievements. In their student days, a generation ago, they were often regarded by their fellow students with something akin to pity; today a very large percentage of them are leaders in the learned professions and the industrial and political life of our country. On the basis of this record there need be no fear that 12 weeks of strenuous work as Army trainees will corrupt our young men either as citizens or as scholars.

The selectees for specialized army training who are under 22 years of age must have had at least a high school education, including prescribed work in mathematics. Those under 22 who have had more than two years of college work, must have taken at least one year of college physics, mathematics, or biology. Those 22 years of age or over must have completed at least one year of college work and have a substantial background in at least one foreign language or a year of mathematics and physics or of biology. Those who have had more than three years of college work, in order to become trainees, must have majored in engineering, premedicine, or pre dentistry, or have a substantial background in at least one foreign language. The specialized training courses include aeronautical engineering, chemical engineering, civil engineering, mechanical engineering, sanitary engineering, marine transportation, surveying, internal combustion specialization, basic communications, acoustics and optics specialization, medicine, dentistry, veterinary medicine, personnel psychology, languages and foreign area study.

What conclusions are to be drawn from this Army specialized training and reassignment program which began to be put substantially into effect only about six months ago? First, that the Army was shockingly slow in realizing the nature and scope of its problem and in adopting adequate means for solving it. If the production of munitions had been so badly handled we should not now be holding our own on so many

battle fronts. Second, that American educational institutions did not assume the strong and altruistic leadership that the peril to our civilization imperatively demanded of them. Third, that there have been serious deficiencies of solid substance in the content of collegiate education, and grave lack of the high ideal of transmitting all that is best in the past to those about to take over the work of the world. Well may colleges now tremble for their futures because perhaps only those will survive which again have clear vision and burn with high zeal for service to civilization.

The April Scientific Monthly

In the April issue of *The Scientific Monthly* there are ten principal articles, four of which are illustrated with halftones. They cover a wide variety of subjects, ranging from natural history to philosophy, from physical science to the problem of aging, from engineering in medicine to scholars as teachers.

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The weekly journal *Science* is directed primarily to the interests of professional scientists. *The Scientific Monthly* has somewhat broader aims. It covers generally the fields of the natural and social sciences in nontechnical articles, suitable for both the specialist outside of his own field and the intelligent general public. Journals for professional scientists are numerous and necessary. Scientific journals for the much larger general public may be in the long run equally important, for the ultimate support of science rests on the entire population. There are probably several hundred thousand professional scientists and technologists; there are millions of intelligent people who are interested in science.

At present over 1,000 members of the Association who receive *Science* free with their memberships are subscribers for *The Scientific Monthly* at the special member's rate of \$3 per year. Of

those who receive *The Scientific Monthly* free with their memberships, more than 300 are subscribers for *Science* at the special member's rate of \$3 per year.

Membership in the Association is not limited to those who are distinguished in science; members who have achieved such standing among their fellow scientists are elected to fellowship. The doors of the Association are open also to all those who find in science and its applications high hopes for the future of mankind, or as it is expressed in the information leaflet of the Association:

All persons who are engaged in scientific work, all who get pleasure in following scientific discoveries whether from electrons to galaxies of stars or from microorganisms to man, all who believe that through the natural and social sciences a better society may be achieved—in short all who wish to support the purposes for which the Association exists are eligible to membership.

Proceedings of the Association

Promptly after its organization in 1848, the Association began to publish "Proceedings" of its meetings. The first volume, consisting of 156 pages, contained the names of the officers and of the 461 original members, the "Objects and Rules of the Association," the resolutions that were adopted, the business actions that were taken, and the titles of all the papers that were presented. No formal presidential address was delivered. Thereafter until 1860 similar proceedings of the meetings were published each year, including in addition the addresses of the retiring presidents.

As a consequence of the Civil War no meetings of the Association were held from 1861 to 1865, inclusive. After the close of the war they were resumed with increased numbers of members and of papers presented. In 1884, when the membership had increased to 1,981, the number of papers presented at the Philadelphia meeting was 305, and the Proceedings had grown to a volume of 736 pages. In 1874 the Association was organized under sections with a vice president for each of them who in most cases delivered an address that was published in the Proceedings. Thereafter the Proceedings began to limit publication in full to the most important addresses and papers. Beginning in 1908, the addresses of the presidents of the Association and of most of the vice presidents were published in *Science*, and the Proceedings became largely lists of officers and members (about 7000), while the reports on scientific papers were necessarily limited to abstracts or mere titles.

In 1911 a new plan was adopted—lists of officers and of members and abstracts of the proceedings for the years 1911 to 1914, inclusive, were published in one volume. Similar volumes were published for the years 1915–1920, June 1921–June 1925, July 1925–June 1929, July 1929–December 1934, and for the calendar years 1934–1939.

The 1934–1939 Proceedings

The following quotations from the preface of the 1934–1939 Proceedings outline its contents:

In one respect this volume is unique. It contains the names of the more than 21,000 members of the Association arranged by states and towns, with the field of special interest of each one indicated. Since a very large percentage of the leading scientists of the United States and Canada are members of the Association, there is in this book a convenient answer to the often-arising question concerning what scientists in some special field live in a certain part of the country. The names of members living in seventy foreign countries are similarly classified.

This volume contains also an alphabetical directory, which includes the names of all members of the Association, the degrees they have received, the academic or other positions they hold, their institutional or street addresses, their complete records as members of the Association, and the offices they have held in the Association.

This volume, however, does not consist primarily of lists of names. It contains a brief history of the Association since it was founded in 1848, and, consequently, of the development of American science, at least as far as it has been represented in the meetings of the Association. For clarity this history is divided into sections, each one except the first and the last covering a decade. Each section includes brief comments on the science of the period, a list of the presidential addresses delivered in it, often with quotations of interesting passages, the titles of other papers of special interest, and, if they are published, the places of their publication. . . .

Since this volume is especially a permanent summary record of the proceedings of the Association for the period from 1934 to 1940, the reports of its meetings for these years contain much more information than do those for earlier years. The titles listed include not only those of the addresses of presidents and vice-presidents but also all those that were open to the public as general sessions, with references to the places of their publication. The titles of more than two hundred and fifty addresses and papers are given. This volume also contains the titles of all the symposia presented at the twenty-one meetings of the Association and its divisions from 1934 to 1940, a total of more than two hundred at which nearly fourteen hundred papers were read.

In short, this volume contains sketches of the science of our predecessors and much of that which is recent. Those whose memories reach back a few decades will feel as they read of the youth of the Association a certain nostalgia for simpler days and attitudes that have passed. It is hoped that they will catch enough echoes from the historical part of this record to awaken in them many happy memories and only pleasant anticipations for the future. Those who are in the early parts of their scientific careers will be most interested in current progress in science. They may even be a little amused at what now seems naive

ideas that were held in earlier days. Yet it is hoped that for them the historical sections of this book will sometimes serve as a little mirror, like that in the front of a motor car, in which they may catch enough glimpses of the road science has traversed to assist them in steering it wisely into the future.

By adopting an economical format the great amount of information contained in the 1934–1939 Proceedings was presented on 1,109 pages. The cost of manufacturing 5,000 copies was \$9,092. Of this number, 365 copies were presented to officers of the Association and of affiliated societies who needed the information presented in this volume to carry on effectively the work of their offices, and 4,282 copies were sold, leaving on hand 353 copies, or about enough to meet the requirements of libraries. It was intended to price the volume so that sales would as nearly as possible equal the cost of publication and distribution, the Association paying for the preparation of copy and selling. As of January 1, the receipts from sales exceeded the costs of publication and selling by \$1,658.

The Next Proceedings

It is planned to publish the next volume of Proceedings as soon as possible after the meetings of the Association are resumed. In addition to covering the history of the Association since 1940, it will include historical sketches of the affiliated societies, now 138 in number. Consequently the 1934–1939 volume and the new volume together will present a brief survey of the history of most of organized science in America. It will contain the names, addresses and academic records of more than 30,000 scientists, and also a geographical index of their distribution throughout the world.

A Message from Russian Scientists

The Association has received a long cablegram from Russia signed by V. Komarov, President of the Academy of Sciences of U.S.S.R., and by A. Bogomolets, president of the Ukrainian Academy of Sciences and member of the Russian Academy, and by 14 other members of the Academy.

This message recites an amazing series of offenses against civilization committed by the German military forces that have invaded Russia: the killing of tens of thousands of civilians, including women, children and the aged, the starving of many scientists who are named, the destruction of libraries, laboratories, archives and other cultural institutions. These are not vague reports, growing in horror with their

repetition. They are attested by scientists occupying high positions who witnessed the wanton destruction or obtained the facts by first-hand investigations.

The Russian scientists appeal to American and British scientists to organize meetings in all large cities to "protest against the barbaric destruction and looting of cultural institutions by German invaders." Out of the depths of their misery they stretch out their hands to us for comfort and support. There is no scientist so cold that he could remain indifferent to such appeals. Yet we must consider whether with civilization imperiled the organization of protest meetings would be the best disposition of the energies of the foremost of American scientists, who alone could effectively organize such meetings. Such meetings might arouse our emotions and possibly add to the morale of the country. But the deadly business of war requires clear and tireless minds that may not be diverted from the great task on which we are engaged in cooperation with our Russian colleagues and with scientists of all the Allied Nations.

Eventually the war will terminate. As important as it is to win the war, to organize the world for peace after its close is of even greater importance. In that work scientists can make as distinguished contributions as they are now making in the war. So it is hoped that our Russian colleagues will now accept our deep sympathy for the tragic sufferings of their countrymen, our unbounded admiration for the heroic and stupendous efforts their peoples are making both in defense of themselves and of civilization, our sincere congratulations on the rapid progress they are making in all the varied fields of science and the arts, and our promise to cooperate with them steadfastly and wholeheartedly in the glorious work of making this a better world.

The Seismological Society of America

In the fall of 1906, following the great California earthquake of April 18 of that year, a group of scientists and engineers at the call of Alexander McAdie, at that time in charge of the U. S. Weather Bureau Office in San Francisco, got together in San Francisco in the belief that in America seismology was unorganized and practically undeveloped, that properly equipped seismographic stations were altogether too few and far between, and that there was an unfortunate lack of knowledge among most scientists, architects, engineers, and people in general concerning the mode of action of earthquakes and the best methods of providing against their more destructive effects. This group formed the Seismological Society of

America to develop organized effort in seismology, to collect accurate information concerning earthquakes, to disseminate information on these matters among the people, to inform them of the methods devised in various countries for the protection of life and property, to replace the element of terror or helplessness which results from imperfect knowledge by an intellectual interest in natural phenomena and by taking reasonable precautions in the light of adequate knowledge.

Although no part of the country is proof against the destructive effects of great earthquakes, the Pacific Coast is the most active geological province, and it seemed to the founding group that the headquarters of the Society should be where the greater opportunity for investigation in the field and the greater popular needs lie. Early in 1907 the Society was incorporated and had 149 members.

Recognizing that the number of working scientists in the field of seismology was small, and that the development of a group of informed laymen in a subject so seriously affecting lives and property was highly desirable, no professional qualifications for membership were imposed, and dues were placed at a low figure—at first only \$2.00, later raised to \$3.00 per year. A payment of \$50.00 covers a life membership, the money so received being placed in a special endowment fund, only the income of which may be used for current expenses. Other types of membership are: Corporate Member, \$10.00 per year, held by organizations who wish to aid the work of the Society; Patron, one who has rendered valuable services to the Society or contributed materially to the funds of the Society by donations; and Honorary Member, as the Board of Directors may decide. All types of members receive the *Bulletin*, the yearly subscription for which from nonmembers is \$4.00.

The membership in the first year of the Society's existence and also at the present time includes seismologists, geologists, astronomers, engineers, architects, insurance men, and others interested in the scientific aspects of seismology, in construction, public service works, protection of life and property, etc. The 1943 list includes 634 members and 121 subscribers to the *Bulletin*.

Since its founding the Society has used its influence towards the field study of earthquake effects and the installation of new or improved seismographic equipment, issued statements of public concern through newspapers and otherwise, and held public meetings for discussion of earthquakes and of means to promote safety. Further, the Society has arranged to supply its members with certain informative publications, such as an earthquake catalogue, and various off-prints of appropriate papers. For some years it was not in a position to issue a publication of its own. However, in 1911, with the financial aid of a patron (R. W. Sayles), the Society began publication of a regular quarterly magazine, *The Bulletin of the Seismological Society of America*, and this has continued regularly to the present time, now in its thirty-third

volume. The *Bulletin* carries scientific papers on pure and applied seismology (physical, geological and engineering aspects), descriptions of earthquake effects, of seismographic stations and instruments, and papers on reactions of structures to earthquake stresses, on safety measures, etc., and also brief notices of felt earthquakes reported from all parts of the world.

The Seismological Society holds annual meetings for the presentation and discussion of papers, usually one session being given to scientific contributions, and another to engineering and other aspects in the applied field. The meetings are usually held in conjunction with the annual meetings of the Cordilleran Section of the Geological Society of America, and often joint sessions have been arranged to consider papers of interest common to the two organizations.

In 1925 the Eastern Section of the Society was established better to provide opportunities for members living in the eastern parts of the continent to attend meetings and hold discussions. This Section holds annual meetings and issues a quarterly publication, *Earthquake Notes*, which carries abstracts of papers presented at the Section meetings, and other information concerning the activities of the Section, and news items of interest to the members. Special dues to the Eastern Section, or subscription to *Earthquake Notes*, is one dollar a year.

In the 1920's the Seismological Society conducted a campaign to raise funds, to purchase and install a group of seismographs for the study of the seismic characteristics of an active region—the San Francisco Bay region—comparable to the regional seismographic group established in southern California under the auspices of the Carnegie Institution of Washington. This resulted in the equipping of four stations with instruments particularly intended for the recording of local earthquakes. In succeeding years the number of stations active and reporting was increased to seven.

The Society is associated with the Geological Society of America, which in recent years has rendered important aid in the publication of the *Bulletin*. The Society is also affiliated with the American Association for the Advancement of Science and in particular with its Pacific Division.

Two special items of publication may be particularly mentioned that have been sought by many outside the list of our members and subscribers, namely, the Fault Map of California, in four sheets (1922), scale 8 miles to the inch, and the Catalogue of Earthquakes of the Pacific Coast of the United States.

While war conditions caused the abandonment of the 1943 annual meeting and have prevented communication with and contributions from members and subscribers in many foreign lands, and make heavy demands on the time and energy of many of the active members, still valuable manuscripts for publication continue to be received and the *Bulletin* is continuing in unimpaired quality and only slightly curtailed in quantity.—GEORGE D. LOUDERBACK.

Membership in the Association

Eligibility for Membership

Membership in the Association is open to all persons engaged in scientific work, whether in the fields of the natural or the social sciences; to all amateur scientists, whatever their special interests; and to all who desire to follow the advances of science and its effects upon civilization. Members having made substantial contributions to the advancement of science are eligible for election as fellows.

Dues and Publications

Membership dues are \$5 per year, including subscriptions for the monthly A.A.A.S. BULLETIN and either the weekly journal *Science*, now in its 99th volume, or *The Scientific Monthly*, now in its 58th volume. *Science* is a journal for professional scientists; the *Monthly* is a nontechnical journal for the intelligent public. The Association also publishes technical symposia and nontechnical books on science that are available for members at prices substantially below those to the public.

Organization and Meetings

The Association was founded in 1848, with an initial membership of 461. Papers in its early programs were classified as either natural philosophy or natural history. Now its work is organized under 16 sections and 189 associated societies having a total membership of over 500,000. Its annual meetings are the greatest regular gatherings of scientists in the world.

Nominations and Applications for Membership

Members may submit nominations for membership at any time, and persons desiring to become members can obtain membership application forms from the Office of the Permanent Secretary, the Smithsonian Institution Building, Washington 25, D. C.

Changes of Address

New addresses for the Association's record and for mailing the journals *Science* and *The Scientific Monthly*, as well as the A.A.A.S. BULLETIN, should be in the Office of the Permanent Secretary, Washington 25, D. C., at least two weeks in advance of the date when the change is to become effective.

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